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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/824,943	03/27/97	RODENBURGH	16958

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TIMOTHY J ABERLE
THE WHITAKER CORPORATION
4550 NEW LINDEN HILL ROAD
SUITE 450
WILMINGTON DE 19808

EXAMINER

THOMAS, C

ART UNIT

PAPER NUMBER

2786

6

DATE MAILED: 07/31/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

08/824,943

Applicant(s)

Rodenburgh et al.

Examiner

Carolyn T. Baumgardner

Group Art Unit

2786



☒ Responsive to communication(s) filed on Mar 27, 1997

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, **prosecution as to the merits is closed** in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claim

☒ Claim(s) 1-15 is/are pending in the application

Of the above, claim(s) _____ is/are withdrawn from consideration

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-15 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☐ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on Mar 27, 1997 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☐ All ☐ Some* ☒ None of the CERTIFIED copies of the priority documents have been

☐ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 4

☐ Interview Summary, PTO-413

☐ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

— SEE OFFICE ACTION ON THE FOLLOWING PAGES —

Part III DETAILED ACTION

1. Claims **1-15** are presented for examination.

Abstract of the Disclosure

2. Applicant is reminded of the proper language and format of an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph, not a single sentence, on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patents claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

The abstract of the disclosure is objected to because it is written in a claim writing format. As written, the abstract is confusing and difficult to follow. A new abstract is required that is a

concise statement of the technical disclosure of the patent and should be directed to the entire disclosure. Appropriate correction is required.

Drawings

3. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.

*** Figure 17 is referenced in the specification page 8, however this figure is missing from the application. MPEP 601.01(g)

Specification

4. The specification is referring to Figure 17 whereas this figure is missing from the application (e.g., see p.16 line 24). Appropriate correction is required.

The specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims **1-2** are rejected under 35 U.S.C. 102(b) as being anticipated by **Schrenk et al.** (patent number **5,202,074**).

As to independent claim **1**, the reference **Schrenk et al.** teaches a tooling assembly comprising:

- a. A product material inlet (e.g., see col. 7 lines 10-22);
- b. A product material channel (e.g., see col. 14 lines 13-32);
- c. A product cavity (e.g., see col. 3 lines 1-10);
- d. A flow path defined by the inlet, channel, and cavity (e.g., see col. 10 lines 12-18);
- e. A flow device assembly (e.g., see col. 14 lines 55-64); and
- f. A flow device actuation assembly (e.g., see col. 14 lines 55-64).

As to independent claim **2**, the reference **Schrenk et al.** teaches a tooling assembly comprising:

- a. A product material inlet (e.g., see col. 7 lines 10-22);
- b. First and second product material channels (e.g., see col. 14 lines 13-32);
- c. First and second product cavities (e.g., see col. 3 lines 1-10);
- d. A flow path defined by the inlet, first and second channels, and first and second product cavities (e.g., see col. 10 lines 12-18);
- e. A plurality of flow device assemblies (e.g., see col. 14 lines 55-64); and
- f. A plurality of flow device actuation assemblies (e.g., see col. 14 lines 55-64).

7. Claims **5-11** are rejected under 35 U.S.C. 102(b) as being anticipated by **Shah (patent number 5,304,341)**.

As to independent claim **5**, the reference **Shah** teaches a method of conditioning tooling having product cavities, the method comprising:

- a. Setting flow channels to initial positions (e.g., see abstract and col. 5 lines 50-68);
- b. Injecting product material into the tooling (e.g., see col. 1 lines 33-48);
- c. Inspecting the parts for quality (e.g., see col. 6 lines 12-19); and
- d. Adjusting the posture of the flow channels to effect product material conditions, avoiding shot shots or over-packing (e.g., see col. 5 lines 50-68).

As to dependent claim **6**, which is dependent upon claim 5, the reference **Shah** further teaches:

a. A flow channel adjustment thereby increasing flow of material to cavity when there is a short shot to a product cavity (e.g., see col. 3 lines 16-35).

As to dependent claim **7**, which is dependent upon claim 5, the reference **Shah** further teaches:

a. A flow channel adjustment thereby increasing resistance to flow when there is over-packing of product cavity (e.g., see col. 2 lines 17-36).

As to dependent claim **8**, which is dependent upon claim 5, the reference **Shah** further teaches:

a. Adjustments made effecting pressure, volumetric, or mass flow rates of the product material (e.g., see abstract).

As to dependent claim **9**, which is dependent upon claim 5, the reference **Shah** further teaches:

a. The adjustments are made manually (e.g., see col. 4 lines 59-67).

As to dependent claim **10**, which is dependent upon claim 5, the reference **Shah** further teaches:

- a. The adjustments are made by a supervisory process controller (e.g., see col. 3 lines 10-15).

As to independent claim **11**, the reference **Shah** teaches an intelligent control system loop for controlling fill of product cavities, the system comprising:

- a. A supervisory process controller (e.g., see col. 3 lines 7-15);
- b. A tooling controller (e.g., see col. 3 lines 7-15); and
- c. A flow device actuation assembly (e.g., see col. 2 lines 17-36).

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371© of this title before the invention thereof by the applicant for patent.

9. Claims **3-4** are rejected under 35 U.S.C. 102(e) as being anticipated by **Hendry (patent number 5,728,410)**.

As to independent claim **3**, the reference **Hendry** teaches a process for making a solidifiable product material comprising:

- a. Flowing the product material in a flow path (e.g., see col. 2 lines 42-56);
- b. Providing a flow channel (e.g., see col. 2 lines 42-56);
- c. Altering the posture of the flow channel with respect to the flow path (e.g., see col. 2 lines 42-56);
- d. Allowing the product material to solidify in the flow channel (e.g., see col. 2 lines 45-56); and
- e. Solidified material being offset with respect to the flow path (e.g., see col. 2 lines 42-56).

As to dependent claim **4**, which is dependent upon claim 3, the reference **Hendry** further teaches:

- a. Producing a solidified product by the process (e.g., see col. 3 lines 1-12).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims **12-15** are rejected under 35 U.S.C. 103(a) as being unpatentable over **Shah** (patent number **5,304,341**) in view of **Maus et al.** (patent number **4,900,242**).

Shah teaches all the above listed limitations of claims 12-15 under the 102(b) rejection of claim 11, however, Shah does not teach compelling manufacturing equipment adjustments, simultaneous monitoring and evaluating quality and measurement data. **Maus et al.** teaches an apparatus for injection molding in which: the controller sends a signal to a manufacturing equipment controller to compel adjustments to be made to the pressure and temperature of the product material (e.g., see col. 28 lines 1-7); performing product manufacturing of a part while simultaneously monitoring (e.g., see col. 17 lines 4-21); feeding process monitoring data back to the controller after analysis by an intelligent process evaluation (e.g., see col. 17 lines 4-21); and evaluating product quality and measurement data and feeding it to the controller (e.g., see col. 17

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lines 29-53). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify **Shah** with the teachings of **Maus et al.** because the production economics and capacity utilization of high-yield multiple cavity molding optimizes fixed costs associated with manufacturing of products.

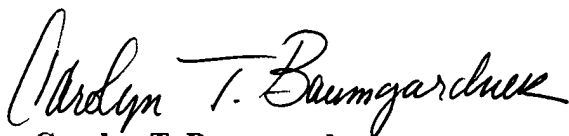
Conclusion


11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Carolyn T. Baumgardner, whose telephone number is (703) 306-4768. The examiner can normally be reached on M-F from 8:30 a.m. to 5:00 p.m. EST.

If attempts to reach the examiner by phone fail, the examiner's supervisor, Reba I. Elmore, can be reached at (703) 305-9706. Additionally, the fax phone for Art Unit 2786 is (703) 308-9051 or 308-9052.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 305-9600.


Carolyn T. Baumgardner
July 20, 1998


Reba I. Elmore
Supervisory Patent Examiner
Art Unit 2786

**PAUL P. GORDON
PRIMARY EXAMINER**